

Seminar and Public Meeting

Friday March 28, 2014, 9:30 AM to 3:45 PM

Ferrell Hall Auditorium, West Virginia State University, Institute, WV

Summary of the material that will be covered in the presentations.

1. Determine the odor threshold.

The odor threshold of crude MCHM has been determined by expert panel to be less than 0.15 ppb, with an odor recognition concentration of 2.2 ppb. Equivalent concentrations from a consumer panel will be slightly higher. These concentrations are dramatically lower than the screening level of 10 ppb established for 4-MCHM. These values suggest that people can smell crude MCHM in water at levels significantly lower than the screening levels.

2. Perform 10 home sampling to better understand the occurrence of MCHM in homes.

The 10 home sampling has been completed. No PPH was detected at very low detection limits (0.5 ppb). There were no detections of 4-MCHM greater than 6.1 ppb and 90% of all water samples collected were less than 2.2 ppb. All 4-MCHM detected concentrations were significantly lower than the screening level of 10 ppb. We observed that either licorice or sweet odors were detectable in homes for which we measured very low concentrations of 4-MCHM.

3. Explore Crude MCHM breakdown products and their presence or absence in homes sampled.

Detailed analyses of possible breakdown products were conducted. No breakdown products were observed in the 10 home study. This research is on-going.

4. Design a larger sampling program to determine the distribution of MCHM in the homes and the percent homes below the screening level

Based on the 10 home study we have determined that there is variability in the concentration of 4-MCHM in different locations in single family homes. There are, however, no consistent patterns in these differences. Based on the 10 home study, 4-MCHM should be the sole targeted compound unless other compounds are identified by researchers. Monitoring of PPH and TOC is not advised based on the existing data. The number of homes and samples per home needed in future sampling events will be finalized based on the conclusions of the health effects expert panel. The first question that would be answered by the larger scale sampling is, "Are the concentrations of 4-MCHM in the homes above a screening level established by the panel?" The second question is, "What percent of the homes in the affected areas are above any particular concentration?"

5. Health Effects Expert Panel Review

The panel will report out preliminary results on April 1st through a press conference. The panel consists of five international experts: 1 from Israel, 1 from the UK, and 3 from the US. They will evaluate the 10 ppb 4-MCHM screening level established by the State of West Virginia and the CDC PPH screening level of 1.2 ppm. They will also evaluate the risks from the other minor ingredients of crude MCHM. The panel may identify additional data needs to better understand health risks associated with the crude MCHM compounds.